REMARKS

The Office Action in rejecting previously submitted claim 19 relied upon Japan '314 (JP 11-240314) as anticipating the claim under 35 USC 102(b), and Japan '314 combined with Japan '715 (JP 10-138715) under 35 USC 103(a). Claim 19, as now amended, in addition to specifying that the tread blocks are symmetrical with respect to a radial plane which passes through a midpoint of the tread block in order to distinguish over the previously cited reference JP (JP 4-100706), which rejection the Examiner has withdrawn in view thereof, now specifies that at least one angled sipe, which is formed in certain of the tread blocks in the first rib is slanted toward the leading end wall at an angle between 2° and 15° with respect to the radial plane, and that the sipes in the corresponding tread blocks in the second rib are slanted toward the trailing end wall at the same angle of slant as are the sipes in the tread blocks of the first rib, so that these angled sipes compensate for residual aligning torque (RAT) produced by other parts of the tire. Claim 19 further specifies that each of the tread blocks is free of sipes which extend at an angle substantially opposite of that of the sipes formed therein so that the sipes do not compensate for the residual aligning torque within each of the individual tread blocks. As clearly shown in the drawings and discussed in the Specification, there are no other angled sipes formed in the tread blocks which would change the RAT from that provided by the particularly slanted sipes as now set forth in amended claim 19.

Applicant's invention pertains to a pneumatic tire, which is provided with oppositely angled sipes in opposed tread blocks in a pair of ribs located on

opposite sides of the mid-circumferential plane of the tire. The inclusion of these angled sipes in opposite directions enables the RAT of the tire to be either increased or decreased depending upon the ride characteristics intended to be achieved thereby. The object of the invention is to produce a substantial total RAT from these angled sipes. The challenge is to get this angled sipe RAT large enough to do one of two things; (1) compensate for RAT produced by the carcass, if desired, so as to produce a tire with zero RAT or (2) produce a tire of a predetermined RAT in order to compensate for the widely varying RAT that is produced by the different types of suspension used in vehicles. Applicant's invention enables a tire to be designed for a specific type of suspension geometry used on a particular vehicle. The angling of the sipes in the forward and leading direction in opposed tread blocks of a tire provides an easier solution to this problem, that is, providing the desired change in RAT, whether to cancel it out entirely or to produce a desired amount of RAT in order to fine tune the tire to a particular vehicle. Thus, if a tire manufacturer desires a tire which has zero RAT, this can be accomplished just as easily as providing a tire having a specific amount of RAT in order to match the suspension system and/or the desired ride and handling characteristics of a particular vehicle.

The tire construction now defined in claim 19 provides this ability, which is different from that taught by Japan '314 and Japan '715. Japan '314 achieves this objective by providing sipes in individual tread blocks which extend across the central angle of twist of the individual tread block, which suppresses the self alignment torque (SAT). Thus, the compensation for torque in JP '314 is

accomplished by the twisted sipes in each individual tread block which is completely different from Applicant's tire as now defined in claim 19 which specifies that the tread blocks in each rib is free of sipes which extend at an angle substantially opposite of that of the sipes formed therein, so that the sipes do not compensate for residual aligning torque within each individual tread block. Applicant's invention achieves its RAT compensation, as discussed above, by providing angled sipes in opposite directions in opposed tread blocks. This is completely different from the manner in which RAT is compensated for in JP '314.

Likewise, JP '715 affects the RAT by providing four specifically arranged sipes in each individual tread block, whereby each pair of sipes is angled at opposite directions within each tread block. Again, JP '715 achieves its RAT compensation by specifically arranged sipes in individual tread blocks. This is completely different from Applicant's tire now defined in claim 19, wherein its compensation for RAT is achieved by the opposed tread blocks in ribs on opposite sides of the mid-circumferential plane of the tire, and which specifies that there are no oppositely angled sipes in individual tread blocks which would compensate for the RAT within individual tread blocks. Thus, both of the cited references achieve RAT compensation entirely different from that of Applicant's tire as now set forth in claim 19 and discussed above. The two different ways of compensating for RAT desired above, namely intra-lug compensation, such as taught by the cited references, JP '715 and JP '314, and inter-rib compensation as taught by Applicant's invention can and do effect other tire operating

characteristics differently, such as wear rates, noise generated, etc. Thus, compensating for RAT intra-lug provides different results and requires other considerations in design than the results and design considerations when compensating for RAT by inter-rib as in the present application and set forth in claim 19.

Accordingly, allowance of claim 19 is respectfully requested, along with claims 20-31 dependent therefrom.